

### **REMARKS**

In the Office Action, the Examiner rejected claims 1-26. By this paper, the Applicants added new claims 27-29, and amended claims 1, 15, 23 and 25 for clarification of certain features to expedite allowance of the present application. These amendments do not add any new matter. Upon entry of these amendments, claims 1-29 remain pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, the Applicants respectfully request reconsideration and allowance of all pending claims.

#### **Claim Rejections under 35 U.S.C. § 103(a)**

The Examiner rejected claims 1, 15, 23, 25 and their dependent claims under 35 U.S.C. § 103(a) as being unpatentable over Hatley et al. (U.S. Patent No. 6,414,458, hereinafter "Hatley") in view of Allison et al. (U.S. Patent No. 5,730,528, hereinafter "Allison") and further in view of Walker (U.S. Patent No. 5,308,986, hereinafter Walker), or in view of these combined with the teachings of Doyle (U.S. Patent No. 6,633,378, hereinafter "Doyle"). The Applicants respectfully traverse these rejections.

#### ***Legal Precedent***

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention

to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Moreover, a statement that the proposed modification would have been “well within the ordinary skill of the art” based on individual knowledge of the claimed elements cannot be relied upon to establish a *prima facie* case of obviousness without some *objective reason to combine* the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d. 1313, 1318 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d. 1161 (Fed. Cir. 1999).

Further, when prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The Federal Circuit has warned that the Examiner must not, “fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *In re Dembiczak*, F.3d 994, 999, 50 U.S.P.Q.2d 52 (Fed. Cir. 1999) (quoting *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)).

***The cited references, taken alone or in hypothetical combination, fail to teach or suggest features recited by independent claims 1, 15, 23 and 25.***

Turning to the claims, the present independent claims 1, 15, 23 and 25 recite, *inter alia*, a UV inspection system having an intensified camera with a built-in intensifier.

The cited references, taken alone or in hypothetical combination, fail to teach or suggest an intensified camera having a built-in intensifier, as recited by independent claims 1, 15, 23 and 25. Hatley teaches a robotic inspection system for inspecting gas turbine combustion components. Hatley fails to disclose a UV system configured to excite and detect fluorescence from a taggant material disposed in a coating on the hot gas component. Allison teaches exciting an article having a phosphor by a laser to cause the phosphor to fluoresce. The emission from the phosphor is optically focused into a beam-splitting mirror that separates the emission into two separate emissions, the emission caused by the dysprosium dopant and the emission caused by the europium dopant. The ratio of the intensity of each emission is determined and the temperature of the article is calculated from the ratio of the intensities of the separate emissions. Doyle teaches projecting ultraviolet radiation onto a surface that causes a dye penetrant to fluoresce at a different wavelength thus revealing the presence of surface cracks and flaws.

The Examiner admitted that Hatley in view of Allison or Doyle fails to show a UV system that includes an intensified camera optically coupled to a collection lens. *See* Office Action, Pages 3 and 11. Further, the Examiner relied on Walker to teach an intensified camera optically coupled to a collection lens for a radiographic imaging system. Walker teaches a scintillating optical fiber for imaging with high energy radiation particles. An image intensifier 24 is coupled to a scintillator plate 22 to amplify the intensity of a photon image before entering the charge couple device camera 26. *See* Walker, col. 9, lines 10-20. Applicants submit that Walker does not teach an intensified camera having a built-in intensifier. In view of these deficiencies, among others, the cited

references, taken alone or in hypothetical combination, cannot render obvious the current independent claims 1, 15, 23, 25 and their dependent claims.

For at least these reasons, among others, the Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103.

***Improper Combination - Lack of Objective Evidence of Reasons to Combine***

In addition, the Examiner has not shown the requisite motivation or suggestion to combine the cited references to reach the present claims. As summarized above, the Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). In the present rejection, the Examiner combined the cited references based on the *conclusory and subjective statement* that it would have been obvious “to someone of ordinary skill in the art to combine the device of Hatley in view of Allison with the image intensifier of Walker for the purposes of providing high efficiency and high resolution imaging system.” Office Action, page 3. Further, the Examiner combined the cited references based on the *conclusory and subjective statement* that it would have been obvious “to someone of ordinary skill in the art to combine the device of Hatley in view of Doyle with the image intensifier of Walker for the purposes of providing high efficiency and high resolution imaging system.” Office Action, page 11. The Applicants note that the passage (e.g., Walker, col. 4, lines 35-40) cited by the Examiner does not even mention the intensifier, much less a built-in intensifier. Specifically, Walker discloses “[t]he scintillator plates of this invention are particularly useful in producing high efficiency and high resolution radiographic systems for x-ray medical diagnosis or non-destructive inspection.” Walker, col. 4, lines 38-40. Accordingly, Applicants respectfully request the Examiner to produce *objective evidence* of the requisite motivation or suggestion to combine the cited references, or remove the foregoing rejection under 35 U.S.C. § 103.

**New Claims 27-29**

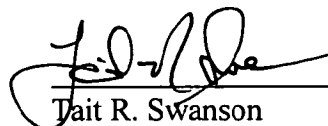
As noted above, the Applicants added new claims 27-29, and believe these claims are in condition for allowance. Claims 27 and 29 are directed to an inspection head including two remote focus micro-cameras, miniature lights and a pair of laser diodes configured to assist with object sizing. Further, claim 28 recites "the inspection head comprises first and second CCD cameras, wherein the first camera has a wide-angle lens to provide overview of the object and the second camera has a narrow field of view to provide detailed view of small areas of the object". The cited references, taken alone or in hypothetical combination, do not teach or suggest at least the foregoing features of the new claims 27-29. Accordingly, the Applicants respectfully stress that the new claims 27-29 are in condition for allowance. Further, Applicants submit that claims 27-28 depend directly or indirectly from allowable claim 1 and are therefore considered to be allowable at least by virtue of their dependency from an allowable base claim.

**Conclusion**

The Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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